

Teachers Need Teachers To Grow

By Terri L. Wenzlaff & Katherine C. Wieseman

Teacher learning need not be restricted to the classroom where one teaches. Teachers certainly learn within their classrooms—from themselves while teaching and from students while learning. However, teachers are situated in a variety of other opportunities in which learning takes place: inservices, workshops, structured courses, faculty and district meetings, and school-based professional conversations. Sometimes teachers perceive themselves already to be good teachers. These perceptions, justified or not, can be a powerful barrier to change (Brodkey, 1993).

The purpose of the study was to examine the nature of teacher learning in a cohort-based, master's degree program in curriculum and pedagogy that was intentionally designed to be responsive to teachers' personal needs and preferences.

Terri L. Wenzlaff is associate vice-president for academic affairs and an associate professor of teacher education and Katherine C. Wieseman is an associate professor in the Teacher Education Program, both at Western State College, Gunnison, Colorado.

The program aimed to: provide teachers with the confidence to connect what they do in their classrooms to research-informed practices; immerse teachers in a collaborative culture that allowed them to learn from one another as colleagues; consider teacher input in course content and structure design; and address university guidelines and NCATE standards. A secondary purpose was to evaluate teachers' perceptions of how the program design responded to their needs, preferences, and learning processes. This program design took into account what is known about factors that influence teacher learning (Putnam

Teachers Need Teachers To Grow

& Borko, 2000), including teacher beliefs as filters (Pajares, 1992), the importance of interactions in a discourse community (Soltis, 1981, Putnam & Borko, 2000, Regan-Smith, 1994), and the significance of a collaborative culture as a force for change (McLaughlin & Talbert, 1993, Regan-Smith, 1994).

Teacher Learning in a Collaborative Culture

An important foundation for thinking about teacher learning is the construct of teacher beliefs (Ponticell, 1995). Individuals enter teaching with beliefs about schools, teaching, and learning (Pajares, 1992). Furthermore, the beliefs that teachers hold about themselves influence their motivation to learn and act in different ways. How a person learns a particular set of knowledge and skills, the nature of peer interactions, and organizational supports and physical and social contexts become fundamental parts of what teachers learn (Ponticell, 1995; Putnam & Borko, 2000). Learning and growing in teaching involve the construction and reconstruction of practical theories and personal practical knowledge (Clandinin, 1986; Sanders & McCutcheon, 1986).

Interactions with the people in one's environment are major determinants of both what is learned and how learning takes place. The sociocentric view (Soltis, 1981) of knowledge and learning holds that what we take as knowledge and how we think and express ideas are the products of the interactions of groups of people over time. It is important to note that this learning is not a unidirectional phenomenon. The community, too, changes through the ideas and ways of thinking that its new members bring to the discourse (Putnam & Borko, 2000). When teachers complain that learning experiences situated outside of the classroom are too removed from the daily work of teaching to have a meaningful impact, they may mean that such experiences lack meaningful group-based discourse or introspective examination of one's own learning process.

For teacher learning to occur, teachers need opportunities to participate in professional communities that discuss learning theories and various teacher materials and pedagogy. These opportunities should "support the risk taking and struggle entailed in transforming practice" (McLaughlin & Talbert, 1993, p. 15). The existing cultures and discourse communities in many schools, however, do not value or support a critical and reflective examination of teaching practice (Putnam & Borko, 2000). Regan-Smith (1994) suggests that meaningful graduate study experiences stem from thesis support groups, which assist graduate students in finding solutions to their struggles.

Group work can be a viable means of promoting positive change and accomplishing tasks (Hulse-Killacky, Kraus, & Shumaker, 1999; Jacobs, Harvill, & Masson, 1994). The conceptualization of group work as a means for professional development is supported by Gladding's (1995) view that "individuals have gathered together to create, achieve, and resolve matters not possible otherwise" (p.3). Initiated and

facilitated by professionals other than school administrators, group work may be a key to meaningful, effective, sustained professional development and a necessary component of adult learning. A feeling of ownership and commitment through self-improvement allows ongoing teacher development to flourish (Mycue, 2001). It is the exploration that occurs through group work conversation and collaboration that builds a relationship between ‘group work’ and a ‘cohort’. The characteristics present in group work are expanded through the use of a cohort and extend throughout the life of the cohort, analogous to an extended group project.

A cohort structure, because it fosters a collaborative culture, provides a powerful force for change (Fullan, 2001). Fullan also identifies cohorts as a common feature of exemplary teacher education programs. Within education, a cohort is a group of students who engage in a program of study together (Yerkes, Norris, Basom, & Barnett, 1994). Basom (1993) suggests there are three types of cohorts — closed, open, and fluid. In a closed cohort, an intact group of students complete all of their coursework together. If students complete some classes outside the cohort, the cohort is open. Students continuously move in and out of a fluid cohort. The cohort model referred to in this manuscript is reflective of a closed cohort. A cohort model enhances opportunities for influencing decision-making processes and for connecting personally and professionally with colleagues (Potthoff, Fredrickson, Batenhorst, & Tracy, 2001; Yerkes, et al., 1994; Barnett & Muse, 1993; Hill, 1992). Working in cohorts improves students’ abilities to develop multiple perspectives, do scholarly work, and improve academic performance and personal expectations (Hill, 1992). Adult learners learn best when relevance to “self” is established (Knowles, 1970); therefore, adult cohorts can address problems of practice or current practices in the field (Norris & Barnett, 1994). The benefits to improved performance might be far-reaching; for example, Weise (1992) concluded that the improved academic performance displayed by a cohort of teachers also indirectly improved K-12 student performance.

Research Process

This research study was guided by two overarching questions: (1) What is the nature of learning for teachers’ in the graduate program cohort? and (2) How does the program design mesh with teachers needs, preferences, and learning processes? An emergent research design (Lincoln & Guba, 1985) characterized the process used to answer the research questions. Data collection methods consisted of the analysis of documents and field notes, and participant observation. A “spiral of analytic circles” (Creswell, 1998) was used throughout the research process. This approach consisted of data organization, immersion in the data and memo writing, category formulation and interpretation in the form of themes, and re-presentation of the data. It also informed the construction of subsequent data collection methods. For example, the analysis of one survey, administered at the end of the first year of

Teachers Need Teachers To Grow

the graduate program, informed the design and administration of a second survey that same summer. This timing was selected because the teachers would hold experience-based perspectives on how the program related to and responded to their individual learning processes. Quantitative responses (in the form of Likert scale ratings) were examined for percentage of occurrence. Qualitative responses on all documents (i.e., open-ended essays, electronic bulletin board responses, and chat discussions) and field notes of conversations among teacher education faculty and teachers were analyzed for emergent themes, based on coding and categorizing. Triangulation across methods of data collection was used to check the credibility of the emergent themes (Lincoln & Guba, 1985).

Description of the Cohort

The 2000-2002 cohort of the graduate program began with 22 graduate students. All were classroom teachers and for the purpose of this article they will be referred to as teachers rather than students. At the conclusion of the first academic year of the program, one teacher opted out of the program to enroll in an interdisciplinary-based graduate program offered at another institution. The remaining 21 teachers completed the program. Seventy-six percent of the teachers in this cohort teach in rural, small schools; the remainder teaches in urban schools. The teachers hold positions at every level of education from kindergarten to high school and range from two to twenty years of teaching experience.

Forty-three percent of the cohort entered the program to improve their skills as teachers. They viewed the program to be a form of professional development, and believed that as teachers, they were lifelong learners. Twenty-six percent of the cohort became students in the graduate program to advance on their respective salary schedules within their school districts. Twenty percent enrolled in the program because it was relatively close to home; they did not need to pack up and move away from their families for long time periods. Nine percent applied to this program because of institutional reputations. Two percent had other reasons for entering the program.

Context of the Study

This cohort, master's degree program was the result of a partnership between a large, urban institution that grants graduate degrees and an institution in a small, rural area that grants baccalaureate degrees and prepares teachers for initial licensure, but does not have graduate-degree-granting authority. While not the graduate-degree-granting institution, it was the institution at which the graduate program occurred and the participating teacher education faculty members were the faculty consistently available for students throughout the program.

Analysis of a needs survey of teachers on the western slope of Colorado had determined there was sufficient interest in a partnership offering a master's degree in curriculum and general pedagogy. Limitations in the availability of faculty to

Terri L. Wenzlaff & Katherine C. Wieseman

teach the coursework contributed to the decision to use a cohort model and a program beginning during the summer and spanning two full years.

The 36 credits of coursework, taught by faculty from each institution, focused on assisting practicing teachers in transforming practice. As the teachers critically examined relevant educational constructs and theories in each course, the emphasis was on theory-practice connections. The courses [12 credits] offered during the first summer were typical of most master's degree programs, such as models of instruction, research for teachers, assessment for the classroom teacher, and problem solving for teachers. Unique to this program was that course content was tailored to address the teacher's specific academic context. While instruction was based on theory, assignments were tailored to each teacher's needs. For example, in the assessment-for-the-classroom-teacher course, teachers were instructed about how to develop a selected response exam and actually brought in exams they had developed and previously administered to students. The assignment was to revise the exam. During the academic year in the advanced practicum (three credits each semester), teachers administered the revised exam to students as a means to test out the revised exam and make comparisons to the previous exam.

Another unique component of the program was an advanced practicum during the academic years between the summer sessions. In this practicum teachers conducted the projects that were designed during the summer courses, and, through reflective teaching, enacted what they had learned in the summer courses. These projects were designed by individual teachers in order to meet their personal/professional learning needs such as the assessment assignment example described previously. Additionally during the advanced practicum, teachers were in study groups to facilitate collaborative work and to reflect on their work. They were able to physically meet with their study groups as well as interact with the entire group electronically.

During the first academic year of the two-year program, two faculty made site visits to the teachers' classrooms. The individual teachers facilitated the purpose and structure of the site visits. For example, the faculty observed the teachers implementing models of teaching and various assessment methods, and acted as coaches regarding teachers' research projects. Additionally, teachers engaged in professional discourse and group work through face-to-face study groups, electronic bulletin board discussions and electronic chat sessions.

After the first year, the program professors had a better understanding of teacher needs and were able to design the assignments for the second summer based on course requirements and teacher needs. The second summer included (11 credits) courses in advanced educational psychology, school improvement and reform, and a six-credit curriculum workshop. In both the school improvement and reform course and curriculum workshop, teachers focused more specifically on their respective content areas and were also afforded the opportunity to collaborate in teams. An overlapping project across both courses allowed teachers, as collabo-

Teachers Need Teachers To Grow

rative teams, to develop reforms for their particular schools to be enacted after returning to their schools in the fall. For the final day of the second summer, administrators from the teachers' buildings were invited to teacher presentations about their projects. The local school district administrators were present and supportive of the proposed changes. Teachers' subsequent attempts to make change in their buildings were met by apprehension from their colleagues and while some change was made, it was not as much change as hoped for by teachers and administrators. In the advanced practicum during the second academic year, teachers more consistently guided their study group structure, electronic bulletin board discussions, and chat sessions.

Teachers returned during the third summer for one day only (1 credit) in order to defend their standards-based portfolios. Primarily professors from both institutions who had taught summer courses were present to observe and evaluate teacher portfolio defenses. A guest professor from the larger institution was present due to her interest in portfolio work; a professor from the same institution, who had retired since teaching during the first summer, returned because he was interested in teacher progress.

The professors created the cohort-based program knowing that for a cohort to grow and prosper members must feel like a community of learners. Prior to beginning the actual class sessions, professors met to discuss program vision and interactions among courses. Once the courses began, professors met regularly to discuss how teachers were progressing and how the courses were proceeding. One of the important aspects that the professors learned when teaching in the cohort was to be constantly in step with the teachers. As the program progressed, professors recognized their place in the cohort: equal cohort member at times, and family leader and nurturer at other times. Professors learned how to adapt to individual teachers' needs as well as the needs of the cohort. Not only did teachers grow and learn as professionals, the professors as teachers also grew professionally.

The Nature of Teachers' Learning Processes

The teachers' perceptions of their learning processes and needs as learners were elicited through responses on two surveys, and emerged in electronic communications and through interactions during courses. Dominant in the cohort's preferences were "learning by doing" in a socially mediated context, having an opportunity to decide what and how to learn, and relating what was being learned to their respective classrooms through a reflective teaching orientation.

Teachers responded to survey statements that focused on specific aspects of learning processes, such as "prefers independence in deciding what to learn" and "filters learning physically (by doing)." For these statements the teachers rated themselves using a Likert scale, ranging from *absolutely true [AT]* to *mostly true [MT]* to *somewhat true [ST]* to *no clear opinion [NCO]*. With respect to their

Terri L. Wenzlaff & Katherine C. Wieseman

preferences for “filtering,” that is, processing information, most of the cohort (80%) indicated that learning physically - by doing - was essential. Less than 45% of the cohort relied on processing information emotionally to learn, and/or approached information intellectually or spiritually. A majority of the cohort (60%) viewed themselves as being self-directed, preferring to decide what and how to learn (respectively, 84% and 95%). A majority of the cohort (70%) thought of learning as being socially mediated. These patterns applied regardless of the venue of their learning process (graduate class sessions or in their respective classrooms).

Narrative commentary revealed that the predominant learning modality in this cohort was associated with tactile and kinesthetic learning in the social context of their classrooms. Responses to the prompt, “Describe your learning process as a student” suggested that doing was generalized across content areas and grade levels as reported in the following sample of comments.

- ◆ Trial and error! I do and I understand. (Grade 1 teacher)
- ◆ Visual, abstract random, everything, especially repetition of everything, holistic .(Grade 4 teacher)
- ◆ I like very much to be active and involved, I’m very much a self-learner. (high school technology coordinator)
- ◆ I am a doer, I like receiving snippets of info to do the work and then apply that to my own context. (high school English teacher)
- ◆ Tactile which I have adapted to include writing. (high school biology teacher).

Twenty-five percent of the cohort identified themselves as strongly visual learners as reported in the following sample of comments.

- ◆ I am a visual learner who benefits from discussion. (Grade 4 teacher)
- ◆ Learning comes in many different forms, I go with the flow always keeping it visual. (middle school science teacher)
- ◆ I have had to write to remember, I read, write, reread. Hands on (hold my hand); I am usually nervous, I want to do things right so I worry but am afraid to ask questions, I need encouragement and praise so I know I’m doing a good job (I thrive). (Grade 6 English teacher)
- ◆ I like to see, hear, read in different amounts for each section, I like variety in the learning process. (high school art teacher)

When asked to think specifically about their learning process as a teacher, 75% of the cohort explicitly indicated that a reflective teaching orientation was key to their learning process.

- ◆ Improve from reflections, I like to team teach, learn from strengths of others .(elementary art teacher)

Teachers Need Teachers To Grow

- ◆ Reflection—keeping track of what works and why so I can improve, a constant analysis of who I'm reaching and why or why not. (Grade 4 teacher)
- ◆ When you are responsible for the learning of others your process must change, I still learn while teaching and enjoy going through the process with my class, but I am directing the trip and just along for the ride. (middle school science teacher)
- ◆ I learn from my students, I learn from other teachers and I learn from myself, my learning process has to adapt to whatever comes my way. (Grade 8 math teacher)
- ◆ I learn through student feedback both direct and indirect, I also learn by practicing what I learn, revising as I go, and evaluating what I did on completion. (high school English teacher)
- ◆ I scrutinize my class assignments over and over, I'm not sure if I'll ever be satisfied with it, It's a dynamic process, based on courses/students, I see myself as magnifying my work scrutinously [sic]. (high school English teacher)

Reflective teaching involved learning from others: students, other teachers, and peers in the master's degree cohort. It helped the teacher improve his/her practice through "scrutiny" and "who I'm reaching and why or why not." The teacher's learning process had to be flexible and responsive to the social and student context. The learning process was "a never ending circle."

Teachers' responses about their learning processes were clearly mirrored in their descriptions of what course professors should do to design successful learning experiences and how professors should assess the teachers' growth or achievement (see Figure 1).

Authenticity in course content and assessment was also essential to the teachers. As an elementary art teacher wrote,

Everything we do must be useful and authentic, no hypothetical projects designed among cohort members that we will never teach, because we are all in different schools. Group projects should be designed with real teaching partners, who have buy in and input for the lesson.

The Cohort Becomes a Collaborative Culture

During the first class session of the program the faculty stressed the importance of building community within the cohort. The teachers were informed that they would take all of their courses together and have lunch together at least one day during the week. The result was much more than a simple cohort group; the teachers became a very cohesive, learning team, much like a close-knit family. Throughout the program teachers not only worked as teams, they played together and socialized as friends as well as professional colleagues.

On two different surveys teachers responded that the cohort model had played a positive role in their learning and perception of the program. Their responses to the statement, "I prefer the cohort approach rather than the traditional approach" fell

between the *absolutely true [AT]* to *mostly true [MT]* points on a Likert scale that ranged from *AT* to *MT* to *somewhat true [ST]* to *no clear opinion [NCO]*. The teachers sensed that the cohort model assisted in creating a “community of learners” and helped them to become “better teachers and learners.” They made statements like “I appreciate knowing the other people in the cohort. Getting to know them past the classroom [about their families, schools, situations, etc.] allows us to form friendships and find support through them, probably for a life time” (Grade 8 math teacher). “Having others around you with similar goals helps to keep a clear focus, knowing you are not the only one keeps me from going crazy” (middle school science teacher). The cohort was an integral aspect of creating a collaborative culture.

When responding to the question, “How important is it to you that a cohort approach is used?”, teachers predominately indicated *absolutely true* as their response. Their reasons centered on support, acceptance of learning differences, enjoyment, and expansion of professional perspective. They felt that they were “not in this alone” because “we’re family.” As members of the cohort, each teacher

Figure 1
Teachers Preferences in Academic Coursework

Design Characteristics of Successful Learning Experiences

- ◆ Authenticity — relevant assignments and applying/using assignments in individual classrooms
- ◆ Support — from course professors and cohort members in the form of ample examples, time to integrate and process information, direction and feedback from the course professor — in order to address emotional dimension of learning process
- ◆ Flexibility
- ◆ Clear explicit expectations given by professors
- ◆ Program design meshing with individual learning needs
- ◆ Professors as cohort members and “looping”

Course Assessment

- ◆ Application to classroom teaching required
- ◆ Reflection should be integral dimension
- ◆ Wide variety of assessment practices should be used within program
- ◆ Practices - Tests, Projects, Presentations, Papers, Portfolio, Public learning exhibition, Observation , Interview
- ◆ Mastery learning should be basis of assessment practice
- ◆ Growth over time should be measured
- ◆ Assessment could be scored by checklist or rubric

Teachers Need Teachers To Grow

supported and was supported by others through their educational journeys. Each teacher made a commitment to developing and nurturing the health of the cohort and indicated that they would miss the cohort when they had completed the program. They were “a team working toward the same goal.” As one teacher stated, “teachers need teachers to grow with.”

The Mesh between Program Design and Teachers’ Learning Processes

According to the teachers, a graduate program that supports teacher learning focuses on the personal meaning of teaching and learning as the basis of teacher knowledge. In short, it should be configured to meet individual teachers’ needs with respect to their individual work contexts, time/schedules, communication, and professional self-worth. Program structure should respect and accommodate “teachers’ hectic schedules.” The curriculum should be relevant and introduce teachers to “useful tools and pertinent information” for classroom teaching. Course professors should emphasize “making the learning real and tangible by allowing teachers to work on projects they will use” (high school English teacher).

Teachers should have “tons of time for collaboration [because they] have so much to learn from others” (high school English teacher). They should conference and share with peers as well as have opportunities to be self-directed. “Teachers should take … control of their learning and empowerment [with] enough choice provided within courses” (high school English teacher). They should consistently be situated in active learning roles with ample opportunity to discuss new and difficult educational ideas, and to apply their learning in their respective classrooms to improve what they do. Collaborative learning and/or group structures during coursework and a cohort approach contribute toward satisfying these needs and providing the support desired by teachers.

Finally, co-learning would be valued: course professors would “not only impart learning to teachers but learn and accept information from them as well as very often we can learn from each other” (Fourth grade teacher). Course professors should be caring and create an emotionally safe space for teachers to engage in professional self-scrutiny or reflection. They should remember that “theory and reality must be watched in order that the theory … doesn’t get far away from the reality of teaching” (high school art teacher). Teachers’ emotional well-being while identifying and understanding theory-practice connections are crucial.

Teachers resoundingly perceived that this graduate program meshed well with their learning processes. The program’s structures (e.g., emphasis and sequence of coursework, nature of assessment, and pedagogical strategies used to teach course content) accommodated for their individual learning strengths and needs and their respective work contexts. Coursework was directly related to their daily classroom practice and promoted reflective teaching. Course assessments were practical and

Terri L. Wenzlaff & Katherine C. Wieseman

assisted them in revising their own classroom structures: engaging in curriculum design, teaching a standards-based curriculum, promoting active K-12 learning roles, assessing students' learning, and being involved in school improvement efforts. Eighty-one percent of the teachers rated the statement, "The graduate program totally supports teacher learning" as *AT* or *MT*. Five percent indicated that the statement was just less than mostly true. Three teachers (14%) did not complete the survey containing this item.

Teachers felt that they "got all sides of the education story." "They opened their eyes and became more tolerant of differences" and "learned to think outside the box." Teachers' comfort and rapport with each other, both personally and professionally, contributed toward a heightened awareness and appreciation of listening to and seeing perspectives other than their own. The teachers experienced that "learning can be and is fun and enjoyable."

Summary and Implications

The findings of this study suggest that a cohort-based graduate program that is personalized and responsive to teachers' needs promotes meaningful learning and a sense of empowerment. A collaborative culture comprised of teachers from different levels of schooling and content areas, as well as different district contexts, can help teachers to broaden their perspectives about teaching and learning and educational systems. In order to connect theory to practice the teachers in this study best "learned by doing" meaning they learned best by having authentic experiences and practical course assignments, reflecting on their "doing," and having input on graduate course design and content.

Empowerment within a discourse community is the key to teacher learning. For teachers to believe themselves empowered, they must direct their learning opportunities. Relevance to self (Knowles, 1970) and a sense of ownership (Mycue, 2001) are critical elements to teacher learning. Stanford (2001) suggested that the improvement of master's level teacher education requires a commitment to labor-intensive programs in which master's level students study in environments supportive of risk taking and hands-on courses and experiences. The findings of this study lend support to Stanford's (2001) assertion. Furthermore, for the learning to be meaningful it must be authentic and connected to the teachers' classroom practice. For the learning to have long-standing impact, "teachers need teachers to grow with" in a discourse community. A discourse community cannot exist in the absence of a collaborative culture and an environment that supports risk-taking (McLaughlin & Talbert, 1993) and reflection. Learning cannot be done to teachers or for teachers.

References

- Barnett, B. G. & Muse, I. D. (1993). Cohort groups in educational administration: Promises and challenges. *Journal of School Leadership*, 3, 400-415.
-

Teachers Need Teachers To Grow

- Basom, M. (1993). Educational leadership faculty involved in teacher education. Connections! *Conversations on Issues of Principal Preparation*, 2(1), 3.
- Brodky, J. J. (1993). Learning while teaching: Possibilities and problems. *Teacher Education Quarterly*, 20(1), 63-70.
- Clandinin, D. J. (1986). *Classroom practice: Teacher images in action*. London, UK: Falmer Press.
- Creswell, J. W. (1998). *Qualitative inquiry and research design. Choosing among five traditions*. Thousand Oaks, CA: SAGE Publications.
- Fullan, M. G. (2001). Teacher educator as advocate. Paper presented at the Annual Meeting of the Association of Teacher Educators (New Orleans, LA, February).
- Gladding, S. T. (1995). *Group work: A counseling speciality*, 2nd Ed. Englewood Cliffs, NJ: Prentice-Hall.
- Hill, M. S. (1992). Graduate cohorts: Perceptions of benefits and catalysts to cohesiveness or 19 heads are better than one. Unpublished Manuscript.
- Hulse-Killacky, D., Kraus, K., & Schumacher, R. A. (1999). Visual conceptualizations of meetings: A group work design. *Journal for Specialists in Group Work*, 24(1), 113-124.
- Jacobs, E. E., Harvill, R. L., & Masson, R. L. (1994). *Group counseling: Strategies and skills*. Belmont, CA: Brooks/Cole.
- Knowles, M. (1970). *The modern practice of adult education*. New York: AP.
- Lincoln, Y. S. & Guba, E. G. (1985). *Naturalist inquiry*. Newbury Park: SAGE Publications.
- McLaughlin, M., & Talbert, J. E. (1993). *Contexts that matter for teaching and learning: Strategic opportunities for meeting the nation's educational goals*. Stanford, CA: Center for Research on the Context of Secondary School Teaching, Stanford University.
- Mycue, S. (2001). The professional circle. *Kappa Delta Pi Record*, 38(1), 28-31.
- Norris, C. & Barnett, B. (1994). Cultivating a new leadership paradigm: From cohorts to communities. Paper presented at the annual Meeting of the University Council for Educational Administration. (Philadelphia, October).
- Pajares, M. F. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research*, 62(3), 307-332.
- Ponticell, J. A. (1995). Promoting teacher professionalism through collegiality. *Journal of Staff Development*, 16(3), 13-18.
- Potthoff, D. E., Fredrickson, S. A., Batenhorst, E. V., & Tracy, G. E. (2001). Learning about cohorts: A masters degree program for teachers. *Action in Teacher Education*, 23(2), 36-42.
- Putnam, R. T. & Borko, H. (2000). What do new views of knowledge and thinking have to say about research on teacher learning? *Educational Researcher*, 29(1), 4-15.
- Regan-Smith, M. G. (1994). Graduate school as a professional development experience. *Journal of Staff Development*, 15(3), 54-57.
- Sanders, D. P., & McCutcheon, G. (1986). The development of practical theories of teaching. *Journal of Curriculum and Supervision*, 2(1), 50-67.
- Stanford, R. L. (2001). Some design considerations for masters degree curricula in elementary and secondary education. *Action in Teacher Education*, 23(2), 1-8.
- Soltis, J. F. (1981). Education and the concept of knowledge. In J.F. Soltis (Ed.), *Philosophy and Education* (95-113). Chicago: National Society for the Study of Education.
- Weise, K. (1992). A contemporary study of the Danforth Program for the preparation of school principals at the University of Houston. Unpublished doctoral dissertation, University of Houston, Houston.
- Yerkes, D., Norris, C., Basom, M., & Barnett, B. (1994). Exploring cohorts: Effects on principal preparation and leadership practice. *Connections!* 2(3), 1, 5-8.
-